What is claimed is:

## 1. A compound comprising the formula

$$Z-Q-L-M$$

wherein

Z is selected from the group consisting of

wherein

each X is independently selected from the group consisting of  $CR_{12}$  and N; each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen, and

each  $R_{12}$  is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

Q is a substituted or unsubstituted aromatic ring;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion;

and

L is a substituent providing between 0-10 atoms separation between the M substituent and the Q substituent.

2. A compound according to claim 1 wherein the compound comprises the formula

$$X = X$$
 $X = X$ 
 $X =$ 

- 3. A compound of claim 1, wherein Q is a substituted or unsubstituted phenyl ring.
- 4. A compound of claim 1, wherein Q is a substituted or unsubstituted heteroaryl.
- 5. A compound of claim 1, wherein Q is a substituted or unsubstituted heteroaryl selected from the group consisting of furan, thiophene, pyrrole, pyrazole, triazole, isoxazole, oxazole, thiazole, isothiazole, oxadiazole, pyridine, pyridazine, pyrimidine, pyrazine, triazine, benzofuran, isobenzofuran, benzothiophene, isobenzothiophene, indole, isobenzazole, quinoline, isoquinoline, cinnoline, quinazoline, naphthyridine, pyridopyridine, quinoxaline, phthalazine, benthiazole, and triazine.
- 6. A compound according to claim 1, wherein at least one X in the six membered ring is a substituted carbon atom.
- 7. A compound according to claim 1, wherein at least one of the X substituents in the six membered ring is -CF.
- 8. A compound according to claim 1, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.

9. A compound according to claim 1, wherein M is selected from the group consisting of:

- 10. A compound according to claim 1, wherein M comprises a hydroxamic acid moiety.
- 11. A compound according to claim 1, wherein -Q-L-M is

12. A compound comprising the formula

$$Z \longrightarrow Q \longrightarrow L \longrightarrow M$$

wherein

Z is selected from the group consisting of

wherein

each X is independently selected from the group consisting of  $CR_{12}$  and N; each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted; and

each  $R_{12}$  is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

Q is a substituted or unsubstituted aromatic ring;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between the M substituent and the Q substituent.

13. A compound according to claim 12, wherein the compound comprises the formula

$$R_3$$
 $R_4$ 
 $R_5$ 
 $R_1$ 
 $R_2$ 
 $R_4$ 
 $R_5$ 
 $R_1$ 

- 14. A compound according to claim 12, wherein at least one of R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, or R<sub>5</sub> is fluorine.
- 15. A compound according to claim 12, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 16. A compound according to claim 12, wherein M is selected from the group consisting of:

- 17. A compound according to claim 12, wherein M comprises a hydroxamic acid moiety.
- 18. A compound according to claim 12, wherein -Q-L-M is

## 19. A compound comprising a formula selected from the group consisting of:

wherein

each X is independently selected from the group consisting of  $CR_{12}$  and N; each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl,

aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted;

each  $R_{12}$  is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

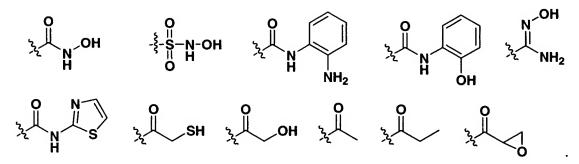
M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between the M substituent and the remainder of the compound.

20. A compound according to claim 19, wherein the compound comprises the formula

$$\begin{array}{c} X \xrightarrow{X} \begin{array}{c} R_{6} \\ X \xrightarrow{N} \end{array} \begin{array}{c} R_{7} \\ | \xrightarrow{L} \end{array} \begin{array}{c} L \xrightarrow{M} \\ | \xrightarrow{R_{1}} \end{array}$$

- 21. A compound according to claim 19, wherein at least one of R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> is fluorine.
- 22. A compound according to claim 19, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 23. A compound according to claim 19, wherein M is selected from the group consisting of:



- 24. A compound according to claim 19, wherein M comprises a hydroxamic acid moiety.
- 25. A compound according to claim 19, wherein -L-M is

26. A compound comprising a formula selected from the group consisting of:

wherein

each X is independently selected from the group consisting of  $CR_{12}$  and N; each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted;

each  $R_{12}$  is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between the M substituent and the remainder of the compound.

27. A compound according to claim 26, wherein the compound comprises the formula

$$X \xrightarrow{X} X \xrightarrow{X} X \xrightarrow{R_6} \xrightarrow{R_7} L \xrightarrow{R_7} L \xrightarrow{R_8} R_8$$

28. A compound according to claim 26, wherein M comprises a member selected from the group

consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula - C(O)- $R_{13}$  wherein  $R_{13}$  is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.

29. A compound according to claim 26, wherein M is selected from the group consisting of:

- 30. A compound according to claim 26, wherein M comprises a hydroxamic acid moiety.
- 31. A compound according to claim 26, wherein -L-M is

- 32. A compound according to claim 26, wherein at least one of R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> is fluorine.
- 33. A compound according to claim 26, wherein at least one X in the six membered ring is a substituted carbon atom.
- 34. A compound according to claim 26, wherein at least one of the X substituents in the six membered ring is -CF.
- 35. A compound comprising a formula selected from the group consisting of:

wherein

each X is independently selected from the group consisting of CR<sub>12</sub> and N;

each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted;

each R<sub>12</sub> is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each

substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between the M substituent and the Q substituent.

36. A compound according to claim 35, wherein the compound comprises the formula

$$\begin{array}{c|c} R_3 & R_7 & R_7 \\ \hline R_4 & R_5 & R_1 & R_9 \\ \hline \end{array}$$

- 37. A compound according to claim 35, wherein at least one of R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, or R<sub>5</sub> is fluorine.
- 38. A compound according to claim 35, wherein at least one of  $R_6$ ,  $R_7$ ,  $R_8$ , and  $R_9$  is fluorine.
- 39. A compound according to claim 35, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 40. A compound according to claim 35, wherein M is selected from the group consisting of:

- 41. A compound according to claim 35, wherein M comprises a hydroxamic acid moiety.
- 42. A compound according to claim 35, wherein -L-M is

43. A compound comprising the formula

$$z-Q-L-M$$

wherein

Z is selected from the group consisting of

wherein

each X is independently selected from the group consisting of  $CR_{12}$  and N; each Y is independently selected from the group consisting of O, S and  $NR_{12}$ ;

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>10</sub> and R<sub>11</sub> are taken together to form a substituted or unsubstituted aromatic ring;

each  $R_{12}$  is independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_{12}$  is not halo, cyano, nitro, and thio in the case where the ring atom to which  $R_{12}$  is bound is nitrogen;

Q is a substituted or unsubstituted aromatic ring;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between the M substituent and the Q substituent.

- 44. A compound according to claim 43, wherein the substituted or unsubstituted aromatic ring formed when R<sub>10</sub> and R<sub>11</sub> are taken together is selected from the group consisting of substituted or unsubstituted aryl and heteroaryl.
- 45. A compound according to claim 43, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 46. A compound according to claim 43, wherein M is selected from the group consisting of:

- 47. A compound according to claim 43, wherein M comprises a hydroxamic acid moiety.
- 48. A compound according to claim 43, wherein -L-M is

49. A compound comprising the formula

wherein

 $R_1$  is selected from the group consisting of hydrogen, halo, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted, with the proviso that  $R_1$  is not halo, cyano, nitro and thio in the case where the ring atom to which  $R_1$  is bound is nitrogen;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between M and the remainder of the compound.

50. A compound according to claim 49, wherein at least one of R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, or R<sub>5</sub> is fluorine.

- 51. A compound according to claim 49, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 52. A compound according to claim 49, wherein M is selected from the group consisting of:

- 53. A compound according to claim 49, wherein M comprises a hydroxamic acid moiety.
- 54. A compound according to claim 49, wherein -L-M is

55. A compound comprising the formula:

$$z-Q-L-M$$

wherein

Z-Q- is selected from the group consisting of

R<sub>1</sub> is selected from the group consisting of hydrogen, alkyl, cycloalkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, and a carbonyl group, each substituted or unsubstituted;

R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, amino, thio, cyano, nitro, and a carbonyl group, each substituted or unsubstituted;

M is a substituent capable of complexing with a deacetylase catalytic site and/or a metal ion; and

L is a substituent providing between 0-10 atoms separation between M and the remainder of the compound.

- 56. A compound according to claim 55, wherein at least one of R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, or R<sub>5</sub> is fluorine.
- 57. A compound according to claim 55, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 58. A compound according to claim 55, wherein M is selected from the group consisting of:

- 59. A compound according to claim 55, wherein M comprises a hydroxamic acid moiety.
- 60. A compound according to claim 55, wherein -L-M is

61. A compound comprising the formula:

$$z-Q-L-M$$

wherein

Z-Q- is selected from the group consisting of

 $R_1$  is selected from the group consisting of  $(C_{1-4})$ alkyl, phenyl, 1-piperidin-4-ylmethyl, 2-morpholi-4-yl-ethyl, 2-halo-phenyl, 2-halo-phen $(C_{1-4})$ alkyl, 3-halo-phen $(C_{1-4})$ alkyl, 3-halo-phenyl, 2-methoxy-phenyl, 3-methoxy-phenyl, 4-methoxy-phenyl, 4-phenoxy-phenyl, 4-benzyloxyphenyl, 4-pyrazol-1-yl-benzyl,

1-p-tolyl-ethyl, pyrrolidin-3-yl, 1- $(C_{1-4})$ alkyl-pyrrolidin-2-yl, 1- $(C_{1-4})$ alkyl-pyrrolidin-2-yl; 2-di( $C_{1-4}$ )alkylamino-ethyl, 2-di( $C_{1-4}$ )alkylamino-ethyl, 2-di( $C_{1-4}$ )alkylamino-ethyl, 2-hydroxy-2-phenyl-ethyl, 2-pyridin-3-yl-ethyl, 2-pyridin-4-yl-ethyl, 2-(1H-indol-3-yl)-ethyl, 3-indolyl( $C_{1-4}$ )alkyl, 1-indan-2-yl, R- $\alpha$ -(HOCH<sub>2</sub>)-phen( $C_{1-4}$ )alkyl, S- $\alpha$ -(HOCH<sub>2</sub>)-phen( $C_{1-4}$ )alkyl, S- $\beta$ -(HOCH<sub>2</sub>)-phen( $C_{1-4}$ )alkyl, R- $\beta$ -(CH<sub>3</sub>)-phen( $C_{1-4}$ )alkyl, 6-propylsulfanyl, *trans*-4-hydroxy-cyclohexyl, 1-aza-bicyclo[2.2.2]oct-2-yl, 1-( $C_{1-4}$ )alkyl-piperidin-3-yl, 1-(2,2-difluoro-ethyl)-piperidin-3-yl, (2-di( $C_{1-4}$ )alkylamino-2-phenyl-ethyl), 1-benzyl-piperidin-3-yl, 1-allyl-piperidin-3-yl, 1-acetyl-piperidin-3-yl, piperidin-3-yl, and phen( $C_{1-4}$ )alkyl;

 $R_2$ ,  $R_3$ ,  $R_4$ , and  $R_5$  are each independently selected from the group consisting of hydrogen, halo, alkyl, alkoxy, aryl, cyano, and nitro;

M is selected from the group consisting of:

and L is E, Z or mixtures of E/Z -CH<sub>2</sub>=CH<sub>2</sub>-.

- 62. A compound according to claim 61 wherein at least one of  $R_2$ ,  $R_3$ ,  $R_4$ , or  $R_5$  is fluorine.
- 63. A compound according to claim 61, wherein M comprises a member selected from the group consisting of trifluoroacetyl (-C(O)-CF<sub>3</sub>), -NH-P(O)OH-CH<sub>3</sub>, sulfonamides (-SO<sub>2</sub>NH<sub>2</sub>), hydroxysulfonamides (-SO<sub>2</sub>NHOH), thiols(-SH), and carbonyl groups having the formula C(O)-R<sub>13</sub> wherein R<sub>13</sub> is hydroxylamino, hydroxyl, amino, alkylamino, or an alkoxy group.
- 64. A compound according to claim 61, wherein M is selected from the group consisting of:

- 65. A compound according to claim 61, wherein M comprises a hydroxamic acid moiety.
- 66. A compound according to claim 61, wherein -L-M is

67. A compound selected from the group consisting of:

3-[3-(1H-Benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;

*N*-Hydroxy-3-[3-(1-methyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

*N*-Hydroxy-3-[3-(1-isopropyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

 $\label{eq:continuous} (\pm)-3-\{3-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl\}-\textit{N}-hydroxy-acrylamide};$ 

N-Hydroxy-3-{3-[1-(1-methyl-piperidin-4-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

N-Hydroxy-3-[3-(1-piperidin-4-ylmethyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

N-Hydroxy-3-{3-[1-(2-morpholin-4-yl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

N-Hydroxy-3-[3-(1-phenyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

3-{3-[1-(4-Chloro-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;

N-Hydroxy-3-{3-[1-(4-methoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

N-Hydroxy-3-{3-[1-(4-phenoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

3-{3-[1-(4-Benzyloxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;

3-[3-(1-Benzyl-1H-benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;

3-{3-[1-(2-Chloro-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;

- 3-{3-[1-(3-Chloro-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- 3-{3-[1-(4-Chloro-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- *N*-Hydroxy-3-{3-[1-(2-trifluoromethoxy-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- *N*-Hydroxy-3-{3-[1-(3-trifluoromethoxy-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - N-Hydroxy-3-{3-[1-(4-pyrazol-1-yl-benzyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - (R)-N-Hydroxy-3-{3-[1-(1-phenyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - (S)-N-Hydroxy-3-{3-[1-(1-phenyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - (R)-N-Hydroxy-3-{3-[1-(1-p-tolyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (R)-3-(3-{1-[1-(4-Fluoro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-*N*-hydroxy-acrylamide;
  - N-Hydroxy-3-[3-(1-phenethyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
  - 3-(3-{1-[2-(3-Fluoro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-N-hydroxy-acrylamide;
  - 3-(3-{1-[2-(4-Fluoro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-N-hydroxy-acrylamide;
- N-Hydroxy-3-(3-{1-[2-(2-methoxy-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-acrylamide;
- N-Hydroxy-3-(3- $\{1-[2-(3-methoxy-phenyl)-ethyl]-1H$ -benzoimidazol-2-yl $\}$ -phenyl)-acrylamide;
- N-Hydroxy-3-(3-{1-[2-(4-methoxy-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-acrylamide;
- 3-(3-{1-[2-(2-Chloro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-*N*-hydroxy-acrylamide;
- $3-(3-\{1-[2-(3-Chloro-phenyl)-ethyl]-1H-benzoimidazol-2-yl\}-phenyl)-N-hydroxy-acrylamide;$
- 3-(3-{1-[2-(4-Chloro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-*N*-hydroxy-acrylamide;
- $(\pm)$ -3- $(3-\{1-[2-(4-Fluoro-phenyl)-1-methyl-ethyl]-1H-benzoimidazol-2-yl\}-phenyl)-<math>N$ -hydroxy-acrylamide;
  - (R)-N-Hydroxy-3-{3-[1-(2-phenyl-propyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

- (S)-N-Hydroxy-3-{3-[1-(2-phenyl-propyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (S)-N-Hydroxy-3-{3-[1-(1-hydroxymethyl-2-phenylethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (R)-N-Hydroxy-3-{3-[1-(1-hydroxymethyl-2-phenylethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (R)-N-Hydroxy-3-{3-[1-(2-hydroxy-2-phenyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

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N-Hydroxy-3-{3-[1-(2-pyridin-2-yl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
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N-Hydroxy-3-{3-[1-(2-pyridin-3-yl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

N-Hydroxy-3-{3-[1-(2-pyridin-4-yl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

*N*-Hydroxy-3-(3-{1-[2-(1H-indol-3-yl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-acrylamide;

N-Hydroxy-3-[3-(1-indan-2-yl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

N-Hydroxy-3-{3-[1-(3-phenyl-propyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

3-[3-(5-Fluoro-1H-benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;

N-Hydroxy-3-[3-(6-propylsulfanyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

N-Hydroxy-3-[3-(7-methyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;

- 2-[3-(2-Hydroxycarbamoyl-vinyl)-phenyl]-3H-benzoimidazole-5-carboxylic acid methyl ester;
  - 3-[3-(6,7-Difluoro-1H-benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;
  - 3-{3-[1-(4-Methoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylic acid;
  - 3-{3-[1-(4-Benzyloxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylic acid;
  - 3-{3-[1-(4-Chloro-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylic acid;
  - (R)-3-(3-{1-[1-(4-Fluoro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-acrylic acid;
  - (R)-3-{3-[1-(1-p-Tolyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylic acid;
  - 3-{3-[1-(4-Phenoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylic acid;
- *N*-(2-Amino-phenyl)-3-{3-[1-(4-methoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- *N*-(2-Amino-phenyl)-3-{3-[1-(4-benzyloxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - N-(2-Amino-phenyl)-3-{3-[1-(4-chloro-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-

acrylamide;

- (R)-N-(2-Amino-phenyl)-3-(3-{1-[1-(4-fluoro-phenyl)-ethyl]-1H-benzoimidazol-2-yl}-phenyl)-acrylamide;
- (R)-N-(2-Amino-phenyl)-3-{3-[1-(1-p-tolyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- *N*-(2-Amino-phenyl)-3-{3-[1-(4-phenoxy-phenyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - *N*-Hydroxy-3-[4-(1-phenethyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
  - N-(2-Amino-phenyl)-3-[4-(1-phenethyl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
  - 3-[4-(1-Phenethyl-1H-benzoimidazol-2-yl)-phenyl]-acrylic acid;
  - N-Hydroxy-3-{3-[1-(2-piperidin-1-yl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- *N*-Hydroxy-3-{3-[1-(*trans*-4-hydroxy-cyclohexyl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - 3-[3-(1-tert-Butyl-1H-benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;
  - (±)-3-[3-(1-Cyclohexyl-1H-benzoimidazol-2-yl)-phenyl]-N-hydroxy-acrylamide;
- 3-{2-[3-(2-Hydroxycarbamoyl-vinyl)-phenyl]-benzoimidazol-1-yl}-piperidine-1-carboxylic acid tert-butyl ester;
  - (±)-N-Hydroxy-3-[3-(1-piperidin-3-yl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
  - 3-{3-[1-(2-Diethylamino-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- (±)-N-Hydroxy-3-{3-[1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (±)-N-Hydroxy-3-{3-[1-(1-isopropyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (±)-*N*-Hydroxy-3-(3-{1-[1-(2-hydroxy-ethyl)-piperidin-3-yl]-1H-benzoimidazol-2-yl}-phenyl)-acrylamide;
- $(\pm)$ -3-{3-[1-(1-Ethyl-pyrrolidin-2-ylmethyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxyacrylamide;
- (±)-3-{3-[1-(1-Ethyl-pyrrolidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;

- $(\pm)$ -3-{3-[1-(2-Dimethylamino-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- (±)-3-{3-[1-(2-Dimethylamino-1-methyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- $(\pm)$ -3-{3-[1-(2-Diisopropylamino-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxyacrylamide;
- $\label{eq:continuous} (\pm)-3-\{3-[1-(1-Aza-bicyclo[2.2.2]oct-2-yl)-1H-benzoimidazol-2-yl]-phenyl\}-\textit{N}-hydroxy-acrylamide};$
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-6,7-difluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-5,6-difluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide-trifluoroacetic acid;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-4,6-difluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-5,6,7-trifluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-4,6,7-trifluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-4,5,6,7-tetrafluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-4-fluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-5-fluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-6-fluoro-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-N-Hydroxy-3-{3-[1-(1-isopropyl-piperidin-3-yl)-1H-benzoimidazole-2-yl]-phenyl}-acrylamide;
- (R)-3-{3-[4-Fluoro-1-(1-isopropyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;

- (R)-3-{3-[5-Fluoro-1-(1-isopropyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-{3-[4-Fluoro-1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- (R)-3-{3-[5-Fluoro-1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxyacrylamide;
- $(R)-3-\{5-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-2-fluoro-phenyl\}-\textit{N}-hydroxy-acrylamide;$
- (R)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-4-fluoro-phenyl}-N-hydroxy-acrylamide;
- (R)-3-{4-Fluoro-3-[5-fluoro-1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (R)-3-(3-{1-[1-(2,2-Difluoro-ethyl)-piperidin-3-yl]-4-fluoro-1H-benzoimidazol-2-yl}-phenyl)-*N*-hydroxy-acrylamide;
- (±)-3-{3-[1-(2-Dimethylamino-2-phenyl-ethyl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (±)-3-{3-[1-(1-Benzyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-*N*-hydroxy-acrylamide;
- (±)-N-Hydroxy-3-{3-[1-(1-propyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
- (±)-N-Hydroxy-3-{3-[1-(1-isobutyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - $(\pm)$ -3-{3-[1-(1-Allyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- $\label{eq:continuous} (\pm)-3-\{3-[1-(1-Acetyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl\}-\textit{N}-hydroxy-acrylamide};$
- (S)-N-Hydroxy-3-{3-[1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;
  - (S)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-acrylamide;
- (R)-N-Hydroxy-3-{3-[1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-acrylamide;

- $(R)-3-\{3-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl\}-\textit{N}-hydroxy-acrylamide};$
- (R)-*N*-Hydroxy-3-{3-[3-(1-isopropyl-piperidin-3-yl)-3H-imidazo[4,5-b]pyridin-2-yl]-phenyl}-acrylamide;
  - (S)-N-Hydroxy-3-[3-(1-piperidin-3-yl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
  - (R)-N-Hydroxy-3-[3-(1-piperidin-3-yl-1H-benzoimidazol-2-yl)-phenyl]-acrylamide;
- (±)-*N*-Hydroxy-3-{3-[1-(1-propyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-propionamide;
- (±)-3-{3-[1-(1-Ethyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-phenyl}-N-hydroxy-propionamide;

N-Hydroxy-3-[3-(1-phenethyl-1H-benzoimidazol-2-yl)-phenyl]-propionamide;

- $N-Hydroxy-3-\{3-[3-(1-methyl-piperidin-3-yl)-3H-imidazo[4,5-b]pyridin-2-yl]-phenyl\}-acrylamide;$
- $(R)-3-\{3-[3-(1-Ethyl-piperidin-3-yl)-3H-imidazo[4,5-b]pyridin-2-yl]-phenyl\}-N-hydroxy-acrylamide;$

N-Hydroxy-3-[5-(1-phenethyl-1H-benzoimidazol-2-yl)-pyridin-3-yl]-acrylamide;

- $(R)-N-Hydroxy-3-\{5-[1-(1-methyl-piperidin-3-yl)-1H-benzoimidazol-2-yl]-pyridin-3-yl\}-acrylamide; and$
- (R)-N-Hydroxy-3-{5-[3-(1-methyl-piperidin-3-yl)-3H-imidazo[4,5-b]pyridin-2-yl]-pyridin-3-yl}-acrylamide.